

### **REMARKS**

The Office Action dated June 16, 2006, has been received and carefully noted. The above amendments and the following remarks are being submitted as a full and complete response thereto.

#### **CONFIRMATION OF ELECTION AND STATUS OF CLAIMS**

The Applicants hereby confirm the election of Group I directed to Claims 1 and 4 – 7, drawn to a carbonaceous molding. Claims 2, 3, and 8 – 11 are withdrawn from further consideration in this application. Accordingly, Claims 1 and 4 – 7 are present for reconsideration. Claim 7 is being canceled and added to Claim 1. Claim 4 is being amended to correct an informality pointed out by the Examiner. Clear support is found at least in lines 17 and 18 of page 10 of the original Specification as filed. No new matter is present.

#### **REJECTION UNDER 35 U.S.C. 112, SECOND PARAGRAPH**

Claim 4 was rejected under 35 U.S.C. 112, second paragraph as being indefinite. Claim 4 has been amended to more particularly point out and distinctly claim the invention. Clear support for the amendment can be found in lines 17 and 18 on page 10.

#### **REJECTIONS UNDER 35 U.S.C. 102 AND 103**

Claims 1 and 4 – 7 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,863,733 to Rousseau et al. (Rousseau), U.S. Patent No. 5,955,197 to Skowronski et al. (Skowronski), U.S. Patent No. 5,418,012 to Kung (Kung), and European Patent No. 1 188 731 to Oguri et al. (Oguri). Further, Claim 5 was rejected

under 35 U.S.C. 103 as being unpatentable over any one of Rousseau, Skowronski, Oguri, or Kung.

Claim 1 is directed to a high temperature oxidation resistant carbonaceous molding comprising certain particular materials in certain particular relationships. A parent material is made of carbon material and has an exterior surface. A metallic carbide containing layer is formed such that a metal is diffused to the exterior surface of the parent material and metal carbide is formed thereon and having cracks, wherein the metal is at least one of chromium, titanium, zirconium, hafnium, vanadium, niobium, tantalum, molybdenum, and tungsten. A vitreous member composed of a vitreous material is filled in the cracks. A vitreous material layer is formed on a surface of the metallic carbide containing layer. The vitreous member and the vitreous material layer are integrated and cover the exterior surface of the parent material.

Each of Rousseau, Skowronski, and Oguri teach silicon carbide (SiC) as a "carbide" containing layer. Thus there is no teaching, suggestion, or disclosure of the metal being at least one of chromium, titanium, zirconium, hafnium, vanadium, niobium, tantalum, molybdenum, or tungsten. Therefore, there is no anticipation of Claim 1 by these references.

Kung teaches silicon carbide as a parent material. Consequently, there is no teaching or suggestion in this reference of the parent material being made of carbon material. Since the ceramic parent material namely, silicon carbide, of Kung does not burn, adding coatings for preventing burning are not needed. Further, there is no teaching of the purpose of the outer coating layer being for prevention of combustion of

the parent material. One of the objects of the coating layer of Kung is improving corrosion resistance to molten ash deposit. Since silicon dioxide ( $\text{SiO}_2$ ) formed on the substrate surfaces may be readily destroyed via fluxing mechanisms as disclosed in lines 48 – 50 in column 1 of Kung, the silicon dioxide is formed underneath the chromium carbide and chromium coating as set forth in line 22 column 3. Thus according to Kung, the silicon dioxide (vitreous material) is formed between the chromium carbide (metallic carbide containing layer) and the silicon carbide (the parent material). In clear contrast, in the claimed invention according to Claim 1, the vitreous material is formed on the carbonaceous molding that constitutes the parent material on the surface of the metallic carbide containing layer.

Consequently, the present invention is not anticipated by Kung because Kung does not fully teach all the features being claimed.

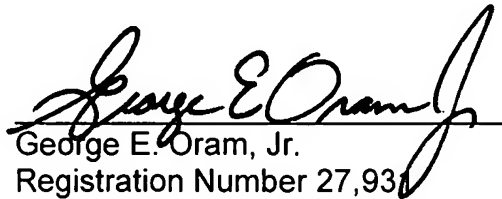
It is respectfully submitted that clear differences exist between the present invention and the cited prior art. It is further submitted that these differences are more than sufficient, that the present invention was not anticipated and would not have been obvious to a person having ordinary skill in the art at the time the invention was made viewing the references.

Applicants respectfully submit that this application is in condition for allowance and such action is earnestly solicited. If the Examiner believes that anything further is desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone

number listed below to schedule a personal or telephone interview to discuss any remaining issues.

In the event that this paper is not being timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to Counsel's Deposit Account Number 01-2300, referencing Docket Number 107355-00103.

Respectfully submitted,

  
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